



**Horizon<sup>®</sup>**  
high volume card personalization

Financial/EMV Solutions

Secure Identification

## Horizon<sup>®</sup> Evolution

The Horizon Evolution is the expandable, modular solution designed to be both scalable and flexible. The vast array of card personalization elements offered on the Horizon Evolution platform meet the current and future needs of three major markets – Financial/EMV, GSM, and Secure ID. The built-in flexibility of this one solution allows for seamless customization as production requirements change. The Horizon Evolution platform includes all the latest card personalization elements offered by NBS and will be the platform that all future developments and enhancements will be built upon. Now that's *Smart*.

### True Flexibility

When we say "flexibility," we mean flexibility in both our hardware and software offerings. Our Horizon Evolution flagship hardware platform coupled with the EMV software packages when applicable support all three target markets – Financial/EMV, GSM, and Secure ID. From start to finish, from market to market, NBS designs customizable, highly reliable, cost effective solutions to take you where you need to be.

### Shifting Markets, Shifting Needs

The leading markets for the Smart Card industry include the GSM, Financial/EMV, and Secure ID markets – each with their own highly specific technological requirements. The cutting-edge Card Personalization Elements ("CPEs") offered in the Horizon Evolution system are designed to be configured to meet your market-specific needs and provide the capability to be reconfigured in the field seamlessly as needs change over time.

### Cost of Ownership is the Bottom Line

This fully customizable, modular system is proven to provide one of the lowest cost of ownership and of the highest level of reliability in the industry results in the one of the lowest cost per card solutions available on the market today.

The Horizon Evolution is the ideal all-in-one solution for high-speed Smart Card issuance. There is no longer a need to buy one Smart Card system exclusive to Financial/EMV, another system for Secure ID, and yet another limited to GSM. When your production demands shift, be ready to stay ahead of the competition. NBS designed the fully expandable modular Horizon Evolution system to grow with you as your needs change. Our Horizon Evolution is the cost-effective system designed to transform into multiple revenue-generating solutions.

**Let the Card Personalization  
Industry Experts at NBS meet  
your needs and exceed your  
expectations.**

# Horizon<sup>®</sup> Evolution

**NBS brings you the next evolution in card issuance. Unsurpassed speed, superior reliability and unparalleled flexibility allows you meet the needs of your customers now and in the future.**

The following details the Card Personalization Elements (“CPE”) available on the Horizon Evolution platform. Your NBS representative can help you customize the Horizon Evolution solution that is right for your business.

**Input CPE:** Configurable to include either one, two or three removable Quick Change magazines each with a 500 card capacity means faster and easier card handling including preloading of blank cards. The Horizon Evolution has the flexibility to be configured with up to three input CPE’s (9 Magazines total).

**Magnetic Stripe Encoder CPE:** Several different encoding types are offered such as, 300 & 2750 Dualco and 600 Oe (for JIS A, B, C options). Other coercivity values may be available on a special order basis for an additional charge. Multiple encoder CPEs can be installed for user flexibility.

**High Speed Smart Card CPE:** Uses an elegant, elevator mechanism to simultaneously personalize up to 24 smart cards in a single CPE. The assembly can be configured with up to 24 contact stations and/or up to 12 contactless stations) The cycle time for personalizing is reduced by the number of stations. The selection of the number of stations is dependent on the maximum anticipated programming time per card as well as the throughput rate of the particular Horizon configuration. As an option, the Smart Card personalization elevator can be fitted with the latest generation of Smartware couplers: Ultrasmart or NBS proprietary couplers.

**Color Graphics (D2T2) Printer CPE:** Prints clear, crisp (300 dpi) photo quality color images at a throughput rate of 500 cards per hour for 1”(2.54cm) x 1”(2.54cm) color photo utilizing panelized dye sublimation ribbons. Additional capabilities include: monochrome ribbon support as well as applying overlay to multiple selected areas for each run or the entire card.

**NEW! High Speed Color Graphics (D2T2) Printer CPE:** Prints clear, crisp (300 dpi) photo quality color images at a throughput rate of 800 cards per hour for 1”(2.54cm) x 1”(2.54cm) color photo utilizing panelized dye sublimation ribbons. Additional capabilities include: monochrome ribbon support as well as applying overlay to multiple selected areas for each run or the entire card.

**NEW! High Speed Split CMY Color (D2T2) Printer CPE:** Prints clear, crisp (300 dpi) photo quality color images at a throughput rate of 800 cards per hour for a full card color image or 1500 cph for a 1”(2.54cm) x 1”(2.54cm) color photo. This printer utilizes mono color ribbons thus greatly increasing the yield per roll as greatly reducing the cost per card.

**Laminator CPE:** The heated roller laminate CPE enables a laminate material to be applied to the surface of a card to provide additional security and durability. A special laminate material is applied to the card surface using pressure and heat. The speed and temperature required is determined by the composition of the card being used.

**High Speed Laser Engraving CPE:** Supplies durable, tamper resistant card personalization with no consumable costs. The laser engraver is fully integrated into the Horizon Evolution and is

controlled by the Windows® based SmartSys™ software and the plug-in Link software. The incorporation of the new flipper mechanism provides the capability to do both front and rear engraving with just one CPE. If higher throughput speed is required, additional CPEs can be added.

**Embossing CPE:** The Horizon Evolution will support up to 3 separate embossers. Software automatically divides work between multiple embossers for optimal throughput. A throughput rate of up to 1400 cards/hour (40 characters per card) with 3 embossers. Front or rear indenter available, tailor the system to the user’s requirements.

**Tipper CPE:** The Horizon Evolution supports multiple tippers for faster/easier production. The Tipper reliable platen design good for all 11 lines on a card and it has an integrated low foil sensor.

**Card Labeler CPE:** Applies labels to the front of a card. It will work with any activation labels designed for use with plastic cards, on a 3-inch core, an outside diameter no larger than 8 inches in diameter and with bottom-off-first orientation.

**Card Flipper CPE:** Adds a greater degree of flexibility to the Horizon Evolution. Adding a flipper right before the stacker correctly orientates the cards for placement into down stream equipment. The flipper CPE also enables the application of both front and rear laminates (Polyester Patch).

**Card Stacker CPE:** Configurable to include either one, two or three removable Quick Change magazines each with a 250 Embossed card capacity. The Horizon Evolution has the flexibility to be configured with up to three Stacker CPE’s (9 Magazines total).

**Optional Mailer:** The addition of the Horizon mailer solution gives you the complete functionality of card personalization from start to envelope! Now you can personalize your cards and have them inserted into mail ready format giving you a totally automated card personalization solution.



Financial configuration shown here



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